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PALM INTRANET**Inventor Information for 09/345617**

Inventor Name	City	State/Country
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Appln Info	Contents	Details	Atty/Agent Info	Continuity Data	Foreign Data	Invent
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3/19/01

US-PAT-NO: 5598477

DOCUMENT-IDENTIFIER: US 5598477 A

TITLE: Apparatus and method for issuing and validating tickets

DATE-ISSUED: January 28, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Berson; William	Weston	CT	N/A	N/A

US-CL-CURRENT: 380/51

ABSTRACT: A system and method for issuing and validating tickets. The system includes a data processing system for receiving ticket request information and generating ticket information; the ticket information including encrypted information and prints the encrypted validating information on a ticket in machine readable format, and a validating system for converting the encrypted validating information into a digital format, decrypting the validating information, testing the validating information to validate the ticket and, if the ticket is valid, downloading at least a portion of the ticket information for reconciliation of accounts; that is for reconciling ticket issuance, use, and payment. The data processing system receives an itinerary from a purchaser, checks a reservation system to determine service availability and provides service availability information to the purchaser who selects appropriate services and submits ticket request information. The data processing system then generates ticket information including encrypted printing system which prints a ticket having the encrypted validating information printed in a machine readable format. When the ticket is presented to a validating system the validating system converts the encrypted validating information into a digital format, decrypts the encrypted validating information, tests the validating information to validate the ticket and, if the ticket is valid, downloads at least a portion of the ticket information for reconciliation of accounts, that is for reconciliation of ticket issuance, use and payment. A number of encryption protocols for encryption of the validating information are also disclosed.

21 Claims, 5 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 3

ABPL: A system and method for issuing and validating tickets. The system includes a data processing system for receiving ticket request information and generating ticket information; the ticket information including encrypted validating prints the encrypted validating information on a ticket in machine readable format, and a validating system for converting the encrypted validating information into a digital format, decrypting the validating information, testing the validating information to validate the ticket and, if the ticket is valid, downloading at least a portion of the ticket information for reconciliation of accounts; that is for reconciling ticket issuance, use, and payment. The data processing system receives an itinerary from a purchaser, checks a reservation system to determine service availability and provides service availability information to the purchaser who selects appropriate services and submits ticket request information. The data processing system then generates ticket information including encrypted validating information a ticket having the encrypted validating information printed in a machine readable format. When the ticket is presented to a validating system the validating system converts

the encrypted validating information into a digital format, decrypts the encrypted validating information, tests the validating information to validate the ticket and, if the ticket is valid, downloads at least a portion of the ticket information for reconciliation of accounts, that is for reconciliation of ticket issuance, use and payment. A number of encryption protocols for encryption of the validating information are also disclosed.

BSPR: U.S. Pat. No. 4,853,961; to: J. Pastor; for: RELIABLE DOCUMENT AUTHENTICATION SYSTEM; issued: Aug. 1, 1989, which is hereby incorporated by reference, discloses one scheme for the authentication of valuable documents. In this patent a document is authenticated by imprinting on the document information encrypted with an encryption key for a public key encryption system, such as the well known RSA system. A corresponding decryption key is encrypted with a second encryption key and also printed on the document . A verifying or validating station stores a decryption key corresponding to the second encryption key, decrypts the encrypted decryption key, uses the decryption key so recovered to decrypt the encrypted information on the document, and tests the recovered information to validate the document. In this system the verifying station need only store a single decryption key while a number of authenticating stations may issue documents in a manner such that compromise of one issuing station will not compromise the entire system.

BSPR: The above object is achieved, and the disadvantages of the prior art are overcome, in accordance with the subject invention by means of a system and method for issuing tickets at remote locations and validating such tickets which includes a data processing system, a local printing system, and a validating system. The data processing system receives ticket request information from a ticket purchaser and generates ticket information which includes encrypted validating information. The local printing system receives ticket in a machine readable format, preferably along with conventional ticket information in a clear text human readable format. When the ticket is presented to the validating system, the validating system automatically converts the encrypted validating information in machine readable format into a digital format, decrypts the encrypted validating information, tests the validating information to validate the ticket, and, if the ticket is valid, downloads at least a portion of the ticket information for reconciliation of accounts. That is, to reconcile ticket issuance, use, and payment.

DEPR: Data processing system 12-1 returns ticket information, including encrypted validating information, to local printing system 20. In one embodiment of the invention, where input device 10, is a personal computer the ticket information is returned through input device 10 and local printing system 20 is an non-intelligent printer operating under the control of input device 10. In another embodiment of the invention local printing system 20 may be an non-intelligent system communicating directly with data processing system 12-1. In still another embodiment local printing system 20 is a facsimile printer.

DEPR: At 58 data processing system 12-1 verifies payment and sends ticket information which includes conventional information normally found on an airline ticket in clear text, as well as encrypted validating information. As discussed above the encrypted validating information

preferably will include enough of the conventional information to allow automated reconciliation of the ticket when the ticket is scanned. If the purchaser has requested additional services at this point data processing system 12-1 communicates the reservation request to the providers of such additional services. At 60 local printing system 20 receives the ticket information and prints ticket 22. Local printing system 20 will include conventional software for printing the encrypted validating information in two dimensional barcode format. Software for printing of two dimensional barcode such as PDF417 is well known and need not be discussed further here for an understanding of the invention.

DEPR: Turning to FIG. 3, one protocol for the generation of encrypted validating information is shown. In the protocol of FIG. 3 data processing system 12-1 includes an encryption key E.sub.m with which it encrypts information T to form encrypted validating information E.sub.m [T] which is sent to local printing system 20. Local printing system 20 includes a conventional capability for printing two dimensional barcode and imprints ticket 22 with the encrypted validating information in two dimensional barcode format 2DBC [E.sub.m [T]]. Validating system 26 includes a conventional capability for scanning two dimensional barcode and converting it to a digital format and decryption key D.sub.m, corresponding to key E.sub.m. System 26 scans and converts the encrypted validating information, to digital format decrypts it using key D.sub.m and checks information T to confirm the validity of the ticket. (As noted above, as used herein "decrypts" includes testing of digital signatures in a conventional manner.)

CLPR: 11. A system as described in claim 9 wherein said data processing system stores another encryption key E.sub.s and said validating information is encrypted with said encryption key E.sub.s, and said local printing station stores a corresponding decryption key D.sub.s and decrypts said validating information prior to printing said ticket .

CLPV: c) transmitting said ticket information to a local printing system, said local printing system automatically printing a ticket for said purchaser, said ticket having said encrypted validating information printed thereon in a machine readable format;

CLPW: b2) printing said encrypted validating information on a ticket in a machine readable format; and

US-PAT-NO: 5432506

DOCUMENT-IDENTIFIER: US 5432506 A

TITLE: Counterfeit document detection system

DATE-ISSUED: July 11, 1995

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE
Chapman; Thomas R.	Fort Lauderdale	FL	33312

US-CL-CURRENT: 705/44,235/379 ,340/5.86 ,705/75 ,713/176

ABSTRACT: A system for verifying the authenticity of a document that bears a number of fields of strings of variable characters such as a check bearing date of issue field, payee field and numeric and alpha amount fields, includes a computer at the document issuing and printing station that controls the computer. A secret program selects certain characters from the strings, transforms those characters into other characters by various methods to generate a unique string of characters to print on the document as a unique code . Any remote authenticating station can authenticate the document with a computer that contains the same secret program used at the time the document was issued. The strings of variable characters born by the document are read into the computer at the authenticating station. The secret program causes the computer to generate an authenticating code from the data read into the computer from the document . The computer compares the authenticating code to the unique code born by the document . If they do not match, the document is rejected as bogus. The system may be applied to checks, money orders, stock certificates, passports and other documents subject to counterfeiting and forgery.

14 Claims, 2 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 1

ABPL: A system for verifying the authenticity of a document that bears a number of fields of strings of variable characters such as a check bearing date of issue field, payee field and numeric and alpha amount fields, includes a computer at the document issuing and printing station that controls the computer. A secret program selects certain characters from the strings, transforms those characters into other characters by various methods to generate a unique string of characters to print on the document as a unique code . Any remote authenticating station can authenticate the document with a computer that contains the same secret program used at the time the document was issued. The strings of variable characters born by the document are read into the computer at the authenticating station. The secret program causes the computer to generate an authenticating code from the data read into the computer from the document . The computer compares the authenticating code to the unique code born by the document . If they do not match, the document is rejected as bogus. The system may be applied to checks, money orders, stock certificates, passports and other documents subject to counterfeiting and forgery.

BSPR: It is accordingly an object of the invention to provide a means for a check agency to authenticate a document by entry of certain elements written or printed on the instrument into a computer, with the computer generating a code that it compares with a unique code on the check, wherein a mismatch indicates fraud.

DEPR: Any conversion table may be prepared and any of a great many possible mathematical formulas may be employed to generate the unique code 18. The chances of anyone breaking the code are miniscule, and the program may be changed as frequently as desired. The clearing agency must keep a copy of every program and the dates of check issue on which it was used. These programs will be filed in program storage 27 and filed by account number and date, so that when a check is read by reader 22 the computer can select by issue date and account number, the correct program to use to generate the authenticate code using the same program that the issuing agency used. It is to be noted that there is nothing in table I that is unique to any single check. The size of table I does not increase with the number of checks using it. Even if millions of checks employ it, this single small table can be used without significant storage or searching burden on the authenticating station in which all of the check unique data may be read off from the check by a person at the authenticating station. There is no burden on storage anywhere of the unique data imprinted on the check. The stored computer program independently permits generation of the code carried by the check to see if it matches. If it doesn't match, something has been altered. There is no need to store any data unique to the check anywhere in order to authenticate the check.

CLPV: C) unique code generating means connected to said first computer means, said unique code generating means for selecting certain of said characters from said strings of characters in at least two fields and generating therefrom another string of characters that is a unique code characterizing the document bearing said variable strings of characters, said unique code generating means including a secret program means for directing said first computer means to select particular characters, and transforming means for transforming the selected characters into another string of other characters to produce said unique code and for printing said unique code on said document along with said variable strings of characters, said secret program means not accompanying said document;

CLPV: E) input means connected to said second computer means for entering into said second computer means, at the time of verification of said document and not before, said printed variable string of characters and said unique code read from a document to be authenticated ;

CLPV: G) comparator means for comparing said unique code and said authenticating code match and for accepting said document when said codes match, whereby said document bears all the document-specific information necessary for verification of said document when said information is used in combination with said program means.

CLPV: D) transforming, by transforming steps, the selected characters into another unique string of characters for printing on said document to be protected as a unique code ;

CLPV: E) printing said unique code on said document to be protected;

CLPV: I) comparing the unique code born by the document to be authenticated with the authenticating code to accept a document as authentic when a match occurs and to reject a

document as bogus when a mismatch occurs, whereby said document bears all the document-specific information necessary for verification of said document when said information is used in combination with said program means.

CLPV: C) unique code generating means connected to said first computer means, said unique code generating means for selecting certain of said characters from said string of characters and generating therefrom another string of characters that is a unique code characterizing the document bearing said variable string of characters, said unique code generating means including a program means for directing said first computer means to select particular characters, and transforming means for transforming the selected characters into another string of other characters to produce said unique code and for printing said unique code on said document along with said variable string of characters;

CLPV: E) input means connected to said second computer means for entering into said second computer means, at the time of authentication and not before, the printed variable characters and said unique code read from a document to be authenticated ;

CLPV: G) comparator means for comparing said unique code and said authenticating code match and for accepting said document when said codes match, whereby said document bears all the document-specific information necessary for verification of said document when said information is use in combination with said program means.

US-PAT-NO: 4108364

DOCUMENT-IDENTIFIER: US 4108364 A

TITLE: Apparatus for processing betting tickets

DATE-ISSUED: August 22, 1978

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Tanaka; Takehiko	Kawasaki	N/A	N/A	JPX
Wakatsuki; Yuzo	Tokyo	N/A	N/A	JPX
Niiya; Toshio	Fuchu	N/A	N/A	JPX

US-CL-CURRENT: 235/419

ABSTRACT: Herein disclosed is an apparatus for processing betting tickets which prints betting tickets during payment of dividends. According to the present invention, the secret code is formed logically in accordance with the input betting information received from the clients, said secret code is added to the betting information and recorded on said betting tickets. During payment of said dividends with respect to the betting ticket, said secret code on the betting tickets is verified as to whether said secret code coincides with another code which is formed logically in accordance with the betting information on said betting ticket, for verifying the payment of said dividends. If said codes do not coincide, then said ticket is considered to be a falsified or forged one.

7 Claims, 6 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 5

ABPL: Herein disclosed is an apparatus for processing betting tickets which prints betting tickets during payment of dividends. According to the present invention, the secret code is formed logically in accordance with the input betting information received from the clients, said secret code is added to the betting information and recorded on said betting tickets. During payment of said dividends with respect to the betting ticket, said secret code on the betting tickets is verified as to whether said secret code coincides with another code which is formed logically in accordance with the betting information on said betting ticket, for verifying the payment of said dividends. If said codes do not coincide, then said ticket is considered to be a falsified or forged one.

BSPR: The present invention relates to an apparatus for processing betting tickets. Said apparatus prints the betting tickets which contain at least one secret code and verifies said betting tickets during payment of dividends.

BSPR: For achieving the above-mentioned object, the characteristic features of the present invention are the logical forming of a secret code in accordance with the input betting information received from the clients, the adding of said secret code to the betting information when betting ticket is printed, and the verifying of said secret code on said betting ticket, when dividends are paid with respect to the winning betting ticket, so as to check whether said secret code coincides with another code formed logically in accordance with the betting information on said betting ticket.

DRPR: FIG. 5 shows the electronic block diagram for creating a secret code and for verifying whether the secret code on the ticket is authentic or not.

DEPR: Next, we will explain the operation of the processing apparatus operating during the period of the printing of betting tickets, and the operation of the addition of secret codes, by referring to FIGS. 3 and 4. When the operator receives betting information from the spectator, he operates a group of keys 3a, 3b, 3c, 3d, 3e and 3f according to said received betting information. For example, when the operator receives the betting information as shown in FIG. 1, he first operates the betting key 31 of the key group 3a so as to set the apparatus to a betting mode. Next, after pushing the race number input key 3f, he pushes the key "1" of the ten-key 3c twice for inputting the race number. Then, he pushes the push button "F" for the key group "3b" and the push buttons "4", "6"; "2", "0", "0", "0", in that order. Referring to FIG. 4, this information is successively written in a register RG.sub.1 of the input device 11a, and the indications "11", "F", "4-6", "2000 Yen" are then displayed on the display panel 1b of the input device 11a. When the operator receives one item of the betting information, he pushes the set key 3d to send a pause signal. Next, the betting information of "4-7" and of "3000 Yen" are impressed and sent to the register RG.sub.1 by operating the ten-key 3c, and displayed on the display panel in a similar manner. When the last item of the betting information is keyed in, the operator pushes the transmission key 3e for sending the output signal which indicates the end of the betting information to be printed on one betting ticket.

DEPR: At the same time, all of the betting information is sent to the computer. Hereinafter, according to a similar process of printing the betting ticket, the secret code is first derived based on the betting information read by the magnetic recorder and reader 17 and then said secret code is stored in the secret code register 28. The coincidence circuit 30 compares the code stored in the betting ticket secret code register 29 and that stored in the secret code register 28. When said two codes coincide, then said coincidence circuit 30 sends, via the line 13a, a coincident signal to the control circuit 14 via the line 13a to inform that the betting ticket is authentic.

CLPR: 2. The apparatus of claim 1, wherein said forming means forms a first computed secret code and a second computed secret code, each different from the other, with predetermined respective logics which are also each different from the other, said recording means comprising printer means for printing said first computed secret code in a visually readable form on said betting ticket, and mechanical recording means for mechanically recording said second computed secret code on said betting ticket in a mechanically readable form, said reading means comprising first means for reading said printed first computed secret code and second means for reading said mechanically recorded second computed secret code to produce respective signals representative thereof, said forming means forming a first additional secret code and a second additional secret code logically in the same manner as said first computed secret code and said second computed secret code were formed, said comparing means comparing said first and second computed secret codes with said first and second additional computed secret codes, respectively, so as to determine coincidence therebetween.

CLPV: means for printing said at least one computed secret code in a visually readable form on said betting ticket, and

CLPV: means for printing said at least one computed secret code in a visually readable form on said betting ticket, and

:VALID *TDB-ACC-NO: NN74022998

DISCLOSURE TITLE: Run Control for Ticket Unit Minimizing Ticket Wastage.
February 1974.

PUBLICATION-DATA: IBM Technical Disclosure Bulletin, February 1974, US

VOLUME NUMBER: 16

ISSUE NUMBER: 9

PAGE NUMBER: 2998 - 3001

PUBLICATION-DATE: February 1, 1974 (19740201)

CROSS REFERENCE: 0018-8689-16-9-2998

DISCLOSURE TEXT:

4p. This run control is used in connection with a string of connected tickets. 10 having a magnetic stripe on one side, which move through a ticket encoding, reading and printing machine in direction 12. The machine includes a magnetic write head 14, a read head 16 spaced from write head 14 (such as by one inch) and a print head 18 still farther downstream (such as five inches from write head 14). Tickets 10 run through the machine in batches, in which all of the tickets are identically printed and magnetically encoded. Read head 16 is used to verify the encoding on a ticket 10 by write head 14; and a ticket 10 is counted to be part of a batch after it is written on, with the assumption that the ticket will verify using head 16.

- The first ticket of a second batch is encoded using head 14 immediately after the last ticket 10 in a first batch has been encoded, and this occurs while the last ticket of the first batch is verifying using read head 16. Thus, if the last ticket of the first batch does verify, there is no ticket wastage. On the other hand, if the last ticket of the first batch does not verify, the encoding of the first ticket of the second batch has already been started at this time, and the two batches with different data will be intermixed if this first ticket of the second batch is used. The second batch, at this time, is therefore aborted, so that the error ticket can be disregarded and can be remade as another ticket to complete the first batch.

- The print head 18 is so controlled that it does not print the ticket of the aborted batch that is being encoded at the time read head 16 is attempting to verify the last error ticket of the first batch, and also does not print the error ticket, so that these two tickets can be easily recognized and discarded.

- The machine is preferably controlled by a microcontroller which contains a "last ticket of batch" shift register 20; a "verify error" shift register 22; an "inhibit operations" shift register 24; control logic 26; a "tickets made" counter 28; a "batch size" compare circuit 30; a "verify" compare circuit 32; a buffer 34; and a "write buffer" address register 36, a "print buffer" address register 38 and a "batch size" register 40 for the buffer 34. The illustrated 0 to 7 sections of buffer 34 contain information applicable to consecutive batches of tickets 10, which is "ticket setup", "encode data", "print data", and "batch size" information. The ticket setup information has to do with ticket length, etc. The encode data information is that information which is magnetically encoded on the magnetic stripe of each of the tickets by write head 14.

The print data information is that information (which may be identical with the magnetically encoded information) that is printed on each of the tickets 10 of a batch by print head 18. The batch size information is the number of tickets 10 in any particular batch.

34 - The control logic 26 in conjunction with address registers 36, 38 and 40 cause the
35 information to be drawn out of the sections of buffer 34, so that this information can be used by
36 the heads 14 and 18 to properly encode and print the tickets 10. Address registers 36, 38 and 40
37 point to the proper 0 to 7 sections of buffer 34 and to the proper parts of each section. For
38 example, the write buffer address register 36 is used for controlling print head 18, and is
39 applicable and points to any of sections 0, 1, 2, 3, 4, 5, 6 and 7 of buffer 34. In particular, the
40 portion of the register 34 that addresses these eight sections of buffer 34 is the "page" part of
41 register 36.

42 The content of the "displacement" part of register 36 points to and addresses the print data,
43 and particularly any part of it in the particular section of the buffer 34 addressed by the page part
44 of register 36. In this case, therefore, the displacement part of register 36 picks the particular
45 character or characters that should be printed by print head 18 onto a ticket 10 at the moment.

46 - The write buffer address register 36 functions in a similar manner with respect to the
47 encode data in the buffer 34: the page part of register 36 picks the particular section (0 - 7) of
48 buffer 34, and the displacement part of register 36 picks the particular data character that should
49 be written by head 14 onto a ticket 10 at the moment. Likewise, the page part of the batch size
50 register 40 points to and addresses any one of sections 0 to 7 of buffer 34, and the displacement
51 part of register 40 addresses the particular batch size which is in the particular section of buffer
52 34 that is addressed by the page part of register 40.

53 - Control logic 26 meters tickets 10 through the machine and generates a "write complete"
54 pulse, when the junction between a pair of tickets 10 passes over write head 14, and generates a
55 "read complete" pulse when the junction between a pair of tickets 10 passes over read head 16.
56 Tickets 10 move in direction 12, and a write complete pulse is thus generated when the junction
57 between tickets A and B passes over write head 14, and a read complete pulse is generated when
58 the same junction passes over read head 16.

59 Control logic 26 causes the bits in shift registers 20, 22 and 24 to move along with the
60 movement of tickets 10, but the bits in the shift registers are intermittently moved to the various
61 positions in the shift registers, in accordance with the conventional operation mode of shift
62 registers. At "write complete" time:

63 The tickets made counter 28 has its contents incremented by 1 and its contents are
64 compared with the batch size stored in buffer 34, and more particularly with the batch size of the
65 particular section of buffer 34 that applies to the particular batch of tickets that is being
66 magnetically encoded and printed. If the compare by compare circuit 30 is accomplished,
67 indicating that the magnetic encoding of the last ticket of a batch has been completed:

68 1. The page part of write buffer register 36 is incremented by 1, indicating that the
69 encoded data in the next section of buffer 34 shall be subsequently used for writing purposes.

70 2. The "tickets made" counter is reset to zero, and

71 3. The "last ticket of batch" bit is set in the last ticket of batch shift register 20.
72 This is the 1 bit illustrated in shift register 20. The bits in shift registers 20, 22 and 24 shift along
73 with the tickets 10 in the direction 12.

74 When the "last ticket of batch" bit in shift register 20 shifts a distance in the shift
75 register corresponding to a movement of the corresponding ticket 10 onto the print head 18, the
76 bit is functional to increment the page part of the print buffer address register 38, so that

77 succeeding printing will be of the print data in the next section of the buffer 34. At "read
78 complete" time:

79 The data read from a ticket 10 by read head 16, is compared by verify compare 32 with
80 the data to be encoded on the ticket and contained in the corresponding section of buffer 34. If the
81 compare is not accomplished, a "verify error" bit is set in the verify error shift register 22. This
82 is the illustrated 1 bit in shift register 22.

83 When this bit moves in register 22 an amount corresponding to a movement of the
84 corresponding ticket 10 to a position over print head 18, this bit has the effect of inhibiting the
85 action of head 18 so that it will not print on this particular ticket 10. In this case:

86 1. If the last ticket of batch bit in shift register 20 is on:

87 a) The "inhibit operations" bit is set in the inhibit operations shift register
88 24. This is the 1 bit illustrated in shift register 24; and, when it shifts along with its corresponding
89 ticket 10 so that this ticket 10 is over print head 18, this bit also prevents a printing action by print
90 head 18.

91 b) The page part of write buffer address register 36 is decremented by 1.
92 Under these conditions, the previous section of buffer 34 is now addressed by the address register
93 36.

94 c) The batch size is loaded into the tickets made counter 28 from the buffer
95 34, and particularly from the section of buffer 34 addressed by the write address register 36.

96 2. The "last ticket of batch" bit is turned off in shift register 20 (whether or not the
97 last ticket of batch bit is on).

98 3. The tickets made counter 28 is decremented by 1 (whether or not the last ticket
99 of batch bit is on).

100 - The 1 bit in the verify error shift register 22 corresponds with the ticket 10 that contains
101 an error. The 1 bit in the inhibit operation shift register 24 corresponds with the ticket 10 that is
102 being encoded, as the read head 16 is attempting to verify the error ticket. Both of these 1 bits
103 inhibit printing operation by print head 18; and, therefore, when an error is thus detected for the
104 last ticket of a batch, two succeeding tickets 10 are not printed between the first and second ticket
batches.

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DERWENT-ACC-NO: 1997-244898

DERWENT-WEEK: 199836

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TITLE: Printed document with printed bar code entirely covered by scratch=off layer e.g. lottery ticket - includes several symbols, confirming printed document is authentic, which are exposed when layer is scratched off, game image is also imaged on part of substrate to show if prize has been won when covering layer is exposed

INVENTOR-NAME: ROYER, A

PRIORITY-DATA: 1995US-0543636 (October 16, 1995)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
EP 857079 A1	August 12, 1998	E	000	A63F 003/06
WO 9714482 A1	April 24, 1997	E	013	A63F 003/06
AU 9670929 A	May 7, 1997	N/A	000	A63F 003/06

INT-CL_(IPC): A63F003/06

ABSTRACTED-PUB-NO: WO 9714482A

BASIC-ABSTRACT: The printed document includes a substrate with a bar-code (22) authentication imprinted on it. A first scratch-off layer (26) is placed over the entire bar-code authentication and can be removed to reveal the barcode authentication so that the printed document can be validated. The bar-code authentication comprises several symbols confirming that the printed document is authentic. It also comprises game data imaged on a portion of the substrate which when exposed determines if a prize has been won by the user of the printed document.

USE/ADVANTAGE - Relates to document bearing scratch off layer on bar-code which when removed authenticates document for use with state and local lotteries. Tampering with scratch-off layer itself raises question as to whether printed document is valid. Area occupied by bar code can be minimised.

ABTX:

USE/ADVANTAGE - Relates to document bearing scratch off layer on bar-code which when removed authenticates document for use with state and local lotteries. Tampering with scratch-off layer itself raises question as to whether printed document is valid. Area occupied by bar code can be minimised.

TTX: PRINT DOCUMENT PRINT BAR CODE COVER LAYER LOTS TICKET SYMBOL
CONFIRM PRINT DOCUMENT AUTHENTICITY EXPOSE LAYER SCRATCH GAME
IMAGE IMAGE PART SUBSTRATE SHOW PRIZE COVER LAYER EXPOSE

DERWENT-ACC-NO: 1994-343871

DERWENT-WEEK: 199935

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TITLE: Document security system e.g. for cheques.

INVENTOR-NAME: DOUGLAS, G S; FOURACRES, R ; DOUGLAS, G

PRIORITY-DATA: 1993GB-0009914 (May 14, 1993)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
ES 2131195 T3	July 16, 1999	N/A	000	G07F 007/12
GB 2278002 A	November 16, 1994	N/A	018	G06K 005/00
WO 9427259 A1	November 24, 1994	N/A	016	G07F 007/12
AU 9466550 A	December 12, 1994	N/A	000	G07F 007/12
GB 2278002 B	December 20, 1995	N/A	002	G06K 005/00
EP 699327 A1	March 6, 1996	E	000	G07F 007/12
EP 699327 B1	March 3, 1999	E	000	G07F 007/12
DE 69416832 E	April 8, 1999	N/A	000	G07F 007/12

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ABSTRACTED-PUB-NO: EP 699327B

BASIC-ABSTRACT: The system consists of a microprocessor (11) that extracts two value critical data information from a received stream of data, encodes this into machine readable coding and controls a laser printer (3), which prints the coded data items and received data in a single pass onto the document. Bearer document verification (31) is done by reading the machine readable coded value critical data, converting this to a form comparable with the open form and comparing it with the open data. Alternatively, the output decoded value critical data can be compared manually with the open form by displaying it on a screen.

USE/ADVANTAGE - For cheques, stocks, bands, certificates. It can print coded data with invisible ink or in non-alpha-numeric print. Fraudulent alterations and errors can be identified. It can be added to point of presentation of bearer document stage with limited additional cost/disruption.

ABSTRACTED-PUB-NO: GB 2278002A

EQUIVALENT-ABSTRACT: The system consists of a microprocessor (11) that extracts two value critical data information from a received stream of data, encodes this into machine readable coding and controls a laser printer (3), which prints the coded data items and received data in a single pass onto the document. Bearer document verification (31) is done by reading the machine readable coded value critical data, converting this to a form comparable with the open form and comparing it with the open data. Alternatively, the output decoded value critical data can be compared manually with the open form by displaying it on a screen.

USE/ADVANTAGE - For cheques, stocks, bands, certificates. It can print coded data with invisible ink or in non-alpha-numeric print. Fraudulent alterations and errors can be identified.

It can be added to point of presentation of bearer document stage with limited additional cost/disruption.

A bearer document verification system including a printing system which includes: a primary computer controlled printer having input means for receiving a data stream from a computer, the data stream containing a plurality of data items at least two of which are value critical, and being arranged to print said data items onto a bearer document in an open user-readable form; computer means programmed for extracting both, or at least two of, said value critical data items from said data stream and for encoding the extracted items into a coded machine readable form in accordance with a pre-determined code so that when printed the encoded data items are non-user readable without the aid of additional equipment; printer means having input means for receiving the encoded data items and being arranged to print the received items substantially immediately onto the bearer document, wherein printing of the open form and encoded data items may be effected in a single pass through the printing system enabling high speed automated mass production of bearer documents, the verification system further including verification means comprising: bearer the documents; and processing means for converting the read data items into a form suitable for comparison with the open form data items printed on the document.